

NEW DESCRIPTIONS

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STUDIES ON THE SCARAB BEETLES (COLEOPTERA : SCARABAEIDAE) OF NORTH EASTERN INDIA : A NEW SPECIES AND NOTES ON OTHER INDIAN SPECIES OF SUBGENUS *STRANDIUS*, GENUS *ONTHOPHAGUS*¹

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(With three text-figures)

The genus *Onthophagus* Latreille, 1802 is one of the largest genera in the animal kingdom and contains about 1620 described species (Balthasar 1963). Division of this multitudinous species into subgenera was of practical necessity but earlier efforts to subdivide these large number of species into subgenera did not meet with much success mainly because no one person has been able to consider *Onthophagus* on a world wide basis. However, while working on Palaearctic and Oriental species, Balthasar divided the genus into a number of subgenera, and during the present study of Scarab beetles of northeastern India it has been observed that inspite of Balthasar's emphasis on extremely variable sexual characters, many of the species may easily be assigned to different subgenera.

Subgenus *Strandius* Balthasar.

Strandius Balthasar, 1935: 307. Type. *Onthophagus (Strandius) lenzi* Harold, 1874.

Medium to large species, uniformly black

or elytra black with red spots or yellow with black bands; upper surface usually shining, bare or covered with minute hairs, head and pronotum with little metallic tinge.

Pronotum with a strongly raised irregularly polygonal basal disc, upper surface never granular; front angles sharp, strongly produced. Front tibiae of male rather elongated, distinctly bent, strongly broad and flat towards apex, penultimate external tooth large, placed rather at right angle, last tooth small and often directed forward. The chief characteristic of the subgenus lies in the shape of the pronotum and in the front tibiae of the male, however, in case of small male and female pronotum is rather simple.

Habits and habitats: As far as Indian species are concerned, members of this subgenus form a biologically well defined natural group. All the members are found in hills above 1000 m altitude and frequent, so far as is known, dung of herbivorous animals only.

Geographical distribution: The subgenus is known from China, Japan, Burma, Vietnam, Cambodia, India and part of Africa. In India there are three species namely *O. (Strandius) gagates* Hope, *O. (Strandius) hingstoni* Arrow and *O. (Strandius) subansiriensis* sp. nov.

¹ Accepted August 1978.

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KEY TO THE INDIAN SPECIES OF THE SUBGENUS
Strandius BALTHASAR

1. Upper surface not entirely black; parts of pronotum and elytra pale.....1. *O. (Strandius) subansiriensis* sp. nov.
- Upper surface entirely black.....2.
2. Elytra shining; front angles of pronotum not hooked.....2. *O. (Strandius) gagates* Hope.
- Elytra opaque, front angles of pronotum, hooked.....3. *O. (Strandius) hingstoni* Arrow.

1. *Onthophagus (Strandius) subansiriensis*
sp. nov. (Figs. 1-3).

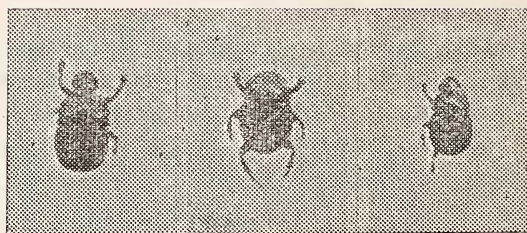
Male major: (Holotype) length 11 mm; breadth 6 mm; head, pronotal disc and major parts of elytra black. Mouth organs, antennae except club, tarsi and a large patch beneath fore femora reddish.

Clypeus acuminate, strongly reflexed in the middle in front; disc strongly punctured, rather rugosely at sides; clypeofrontal carina weak, posterior carina obsolete, forehead strongly punctured, a little rugosely at sides, ocular lobe separated by an indistinct suture, closely punctured. Pronotum with an irregular basal disc having a strong process on each side, front and lateral margin of a disc gradually sloping, closely but unevenly punctured, punctures on disc stronger, cavity below lateral process smooth and shining; front angles acute, hind angle obsolete, base a little produced in the middle, margined; lateral margins almost straight in front, sinuate behind.

Elytra moderately strongly striate, striae sparsely covered with feeble punctuations, intervals rather closely covered with setigerous punctuations. Metasternal shield very feebly punctured in the middle, rather feebly at sides; sides of metasternum closely punctured anteriorly and covered with long hairs. Front tibiae broad at apex, provided with four external teeth, penultimate tooth largest, last one

directed forward, a little obliquely placed.

Female: (Allotype) length 10.5 mm; breadth 7.0 mm; broadly oval, moderately convex. Head rounded, clypeal margin feebly reflexed in the middle in front, clypeal disc strongly and rugosely punctured, clypeofrontal carina strong, curved, posterior carina strong, straight, forehead closely and strongly but not rugosely punctured, vertex feebly punctured. Pronotum completely margined, front angle sharp, hind angle obsolete, base gently rounded, a little produced in the middle; pronotal disc less strongly defined and lateral process represented by a tubercle. Fore tibiae short, external teeth sub-equal and placed at equal distance from each other. Pygidium moderately strongly punctured.



Figs. 1-3. *Onthophagus (Strandius) subansiriensis* sp. nov.

1. Male major; 2. Female; 3. Male minor.

Male minor: (Paratype) length 9.5 mm; breadth 5.5 mm. Male minor resembling female excepting cephalic carinae, external teeth on front tibiae and 6th ventral sternite which are as in male major.

Type: Holotype ♂ major; INDIA: Arunachal Pradesh: Nacho. collected from cattle-dung. 28.xi.1974. J. M. Julka, Regd. No. A1/4391. Paratypes 1 ♀. 1 ♂ (including allotype), data same as for holotype. Deposited at present in the collection of Eastern Regional Station, Zoological Survey of India, Shillong.

Remarks: The species may easily be separated from other related species by (i) pale markings on pronotum and elytra, (ii) strong punctures on pronotum and characteristic pronotal process, and (iii) elytra covered with minute pale setae.

2. *Onthophagus (Strandius) gagates* Hope

Onthophagus gagates Hope, 1831, Gray's Zool. Misc. 22.

Onthophagus gagates: Arrow, 1931. Fauna Brit. India, Lamell., 3: 378.

Onthophagus (Strandius) gagates: Balthasar, 1963. Monogr. Scarab. Aphod. palaearkt. orient., 2: 381.

Material examined: India: Meghalaya: Khasi hills, 5 ♂♂, 4 ♀♀, 30.v.1972, 1 ♀, 18.vi.1965, 1 ♀, 9.v.1965, 1 ♀, 30.vi.1970, 1 ♂, 13.ix.1971, 1 ♀, 28.iv.1971, 2 ♂♂, 1 ♀, 26.iv.1972, 1 ♂, 24.x.1967. coll. S. Biswas. Arunachal Pradesh: Subansiri: 1 ♂, 1 ♀, 28.xi.1974. coll. J. M. Julka.

Habits: This is a hill dwelling species, found only in the dung of herbivorous animal. Primarily a forest dweller but sometimes occurs in cleared areas near forests. It has not been collected below 1000 m altitude from Meghalaya.

Distribution: The species has been recorded in India from Himachal Pradesh (Simla Hills c 2500 m), Uttar Pradesh (Ranikhet, Muktesar, Chakrata, Mussoorie), Assam (Haf-

long), Manipur, Meghalaya (Umtyngar, Mawphlong, Shillong, Mawsynram, Dempep), Arunachal Pradesh (Subansiri dist.) and from Nepal.

3. *Onthophagus (Strandius) hingstoni*

Arrow, 1931.

Onthophagus hingstoni Arrow, 1931. Fauna Brit. India, Lamell., 3: 378.

Onthophagus strandius hingstoni: Balthasar, 1963. Mon. der Scarab. und. Aphod. der palaearkt. und. orient. 2: 381.

The species has only been recorded from Sikkim at about 2000-3000 m altitude. So far it has not been collected from any other states of N. E. India.

ACKNOWLEDGEMENTS

I am thankful to the Director, Zoological Survey of India for allowing me to work out the Scarab beetles collected during the Subansiri expedition of 1974. My thanks are also due to Dr. A. K. Ghosh, Eastern Regional Station, Zoological Survey of India for encouragement, Dr. H. Khajuria for facilities and Dr. R. Paulian, Rector, Academy de Bordeaux, Bordeaux, France for kindly confirming the identification of the new species.

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